

Date: Tuesday, 29/04/2008 10:47:27 AM  
 User: Melanie Fauteux

## Process Sheet

CR

Customer : CC-DAR01 Dart Aerospace Ltd.	Drawing Name : TUBE
Job Number : 38880	
Estimate Number : 10804	
P.O. Number :	Part Number : D37691
This Issue : 29/04/2008 S.O. No. :	Drawing Number : PROTOTYPE
Prsht Rev. : NC	Project Number :
First Issue : / / Type : R & D SM/MED FAB	Drawing Revision : A
Previous Run : 38866	Material :
Written By :	Due Date : 16/05/2008 Qty: 2 Um: Each
Checked & Approved By :	
Comment :	

Additional Product

PROTOTYPE

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL &amp; MEDIUM FAB RESOURCE 1

MAKE PER DRWG D3769 REV A

ml08/05/07 x2

2.0	M6061T6T1000W065	6061T6 TUBE
Comment: Qty.: 1.2600 f(s)/Unit Total : 2.5200 f(s) 6061T6 TUBE		

2 x 14.450

M 18639 X1  
M 18188 X1~~M 18639 X1~~

ml08/05/07

3.0	QC5	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

ENGINEERING

APPROVAL

08/05/07 2008/05/07

4.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1

ACID ETCH AND ALODINE PER QSI 005

AB/FL 05/05/12 (2)

5.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION
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Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

05/05/12 (2)

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## Process Sheet

Customer: CC-DAR01 Dart Aerospace Ltd.

Drawing Name: TUBE

Job Number: 38880

Part Number: D37691

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

FOR ENGINEERING USE ONLY

GIVE TO CHRIS P-ENG

CHARGE TO JOB #00196

*Pat 01-05-29*

7.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*0805-29 Prototype*

Job Completion



*u 58-06-11*

# Receiving Report

Date: 05/09/27  
Supplier: Acier Comp

Batch No: 18639  
Dart P/O: 2008702

Packing Slip: Yes ☒ No ☐  
Invoice: Yes ☐ No ☒  
Receipt: Cash ☐ Cr. ☐

Release Note Attached: Yes ☒ No ☐ N/A ☐  
Waybill Attached: Yes ☐ No ☒  
Shipment Complete: Yes ☐ No ☒  
Q.C. Inspection ☐

Discrepancies		Part No.	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
				96	0		96	

TSR No. \_\_\_\_\_

Initials of receiver (if shipment OK) DL

Production/Admin:  
Date: 05/09/27  
Received/Costing: 2008702  
Initial: DL  
H:\ISO9000\Forms\Purchase\RECREPORT rev B

Accounting:  
Date: \_\_\_\_\_  
AP/MR: \_\_\_\_\_  
Initial: \_\_\_\_\_

MATERIAL: 6061-T6 OR 6061-T62 TUBING PER  
WW-T-700/6 OR AMS4080 OR AMS4082 OR  
QQ-A-200/8 OR QQ-A-225/8

6061T6 TUBE 1.500X .125W 09-27-5

2.6000 /f

155.00

Total Value of Purchase Order

\$1,083.00

Acier 23

DL

## SAMPLE (S) OF ALUMINUM

REPORT: 38548

DIE NO.	H-2367
DESCRIPTION	1" O.D.X0.060" TUBE
AL. ALLOY & TEMPER	6061/T6
EXTRUDEX ORDER NO.	73632-5-A.11
SPECIFICATION	ASTM B221 <i>cf note</i>
SILICON %	0.54
IRON %	0.17
COPPER %	0.18
MANGANESE %	<0.01
MAGNESIUM %	0.80
CHROMIUM %	0.07
ZINC %	<0.01
TITANIUM %	<0.01
ALUMINUM %	REMAINDER
ALLOY TYPE %	6061
ALLOY CAST NO.	05072822A
YIELD STRENGTH (IN ksi)	37.1
TENSILE STRENGTH (IN ksi)	42.4
ELONGATION % IN 2"	11.0
HARDNESS (ROCKWELL 'F')	87.9 87.1 87.6

*06-05-07*  
*THIS BATCH ONLY*

*N. Rampertab*  
N.RAMPERTAB  
(LAB TECH)  
JULY-18-05

DATE:

# Receiving Report

Date: 05/08/02  
 Supplier: MCM MON / KQ STONE

Batch No: M18188  
 Dart P/O: 2008300

Packing Slip: Yes ☒ No ☐  
 Invoice: Yes ☐ No ☒  
 Receipt: Cash ☐ Cr. ☐

Release Note Attached: Yes ☒ No ☐  
 Waybill Attached: Yes ☒ No ☐  
 Shipment Complete: Yes ☐ No ☒  
 Q.C. Inspection U

## Discrepancies

Part No.	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
M40617671.750 W.065		300	228		72	

TSR No. \_\_\_\_\_

Initials of receiver (if shipment OK) DU

Production/Admin:  
 Date 05-08-05  
 Received/Costing 2-8300  
 Initial LA  
 H:\ISO9000\Forms\Purchase\RECREPORT rev B

Accounting:  
 Date \_\_\_\_\_  
 AP/MR \_\_\_\_\_  
 Initial \_\_\_\_\_

216/FT	ATS 1.750 .065	D6061	18	216/FT
228		HT#.....: 1461978	18	216/FT
Dr.		Total...		
05/08/02				

No. of Bdl's/Pieces 4/ 1

Total Weight.....: 202

Customers.: \_\_\_\_\_

1278GD

**KAISER CHANDLER**

**CHANDLER PLANT**  
**BOX 5011 8573 W WILLIS ROAD**  
**CHANDLER AZ 85226**  
**PH: 520.796.1097**  
**FAX: 520.796.0596**  
**SALES: 800.528.8274**

# **CERTIFICATION and PHYSICAL TEST RESULTS**

QP 026A

These results are for

**MARMON/KEYSTONE CORP**

Mill Number .....

**175-42921.**Purchase Order No **60-17566-005**

Alloy .....

**6061**Temper..... **T6**

Part No, Item No, Commodity No or Inventory No

Size Description.

**1.00 IN OD X .065 IN WALL**

Specification(s).

**WW-T-700/6F ASTM B210-04 AMS 4082N**

Additional procedures as called for on Specification:

**MADE IN U.S.A. WE TAKE EXCEPTION TO PARA. 5.2.1. Per AMS 4082N, WAS NOT OILED.**

Limits	Chemical Composition			Per Aluminum Standards and Data 2003							
MIN	0.40	*	0.15	—	0.8	0.04	—	—	—	Ea 0.05	Remainder
MAX	0.8	0.7	0.40	0.15	1.2	0.35	—	0.25	0.15	Total 0.15	
Actuals	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Others	Al
	0.64	0.25	0.21	0.03	0.93	0.07		0.02	0.02		
	0.61	0.32	0.23	0.02	0.95	0.06		0.05	0.02		
										Each 0.05	Remainder
										Total 0.15	

\* For WW-T-700/4 specification, maximum Si plus Fe is .45%.

\*\* 1100 Alloy Max Si + Fe is 0.95 %

Mechanical		Properties	
Lot #	Temp	Yield PSI	Ultimate PSI Elongation %
42921 D1 T6		42,900	47,100 14

**Q. C. REVIEWED**

We hereby certify that the material covered by this report has been inspected in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description; and that samples representative of the material met the composition limits and had the mechanical properties as indicated.

Date 05/25/2005

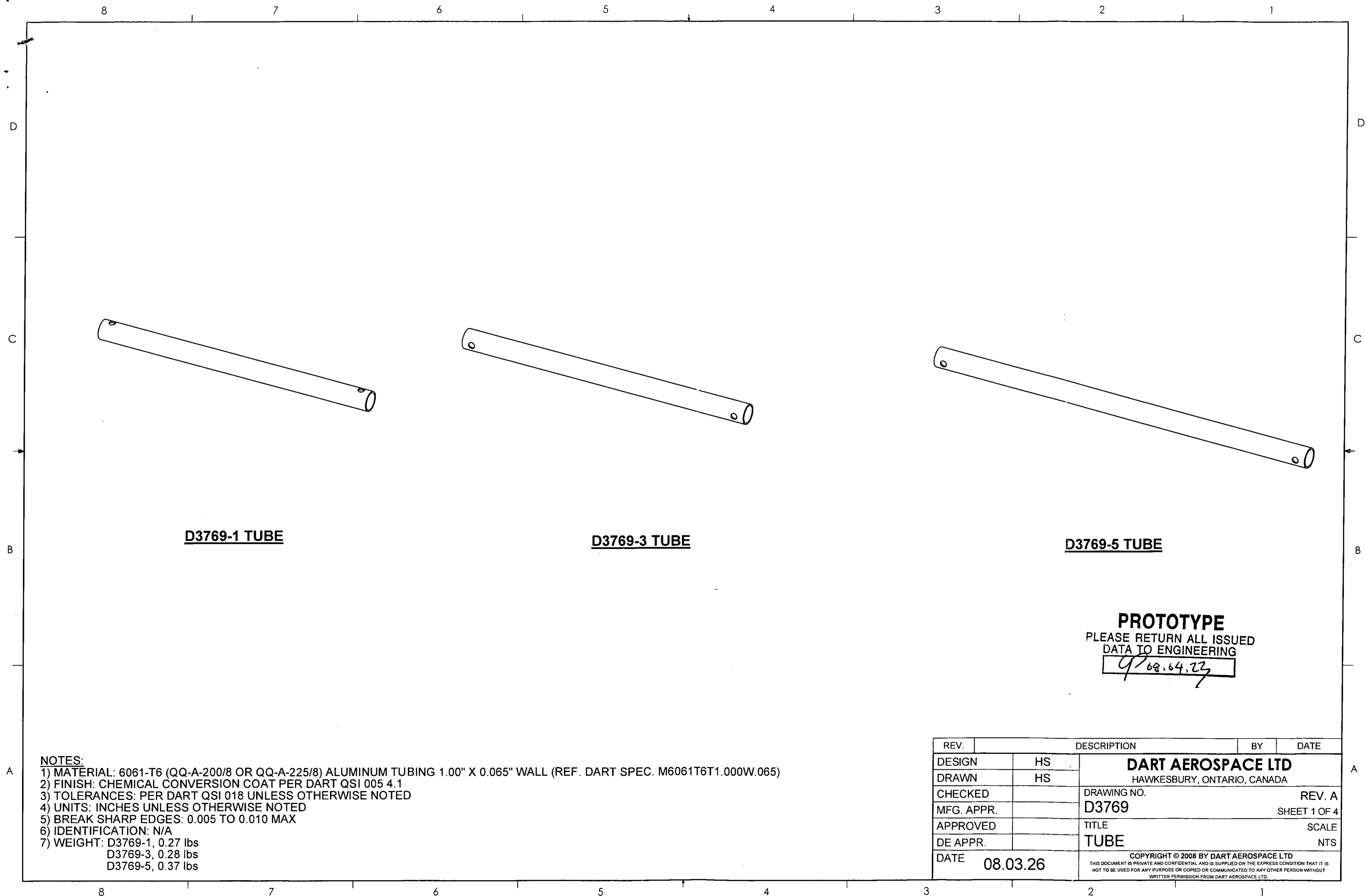
*C E Brooks*

**C. E. BROOKS**  
 Tech. Mgr. Tube

CertAct

Form: CertAct

AT 11.065 734



D3769-1 TUBE

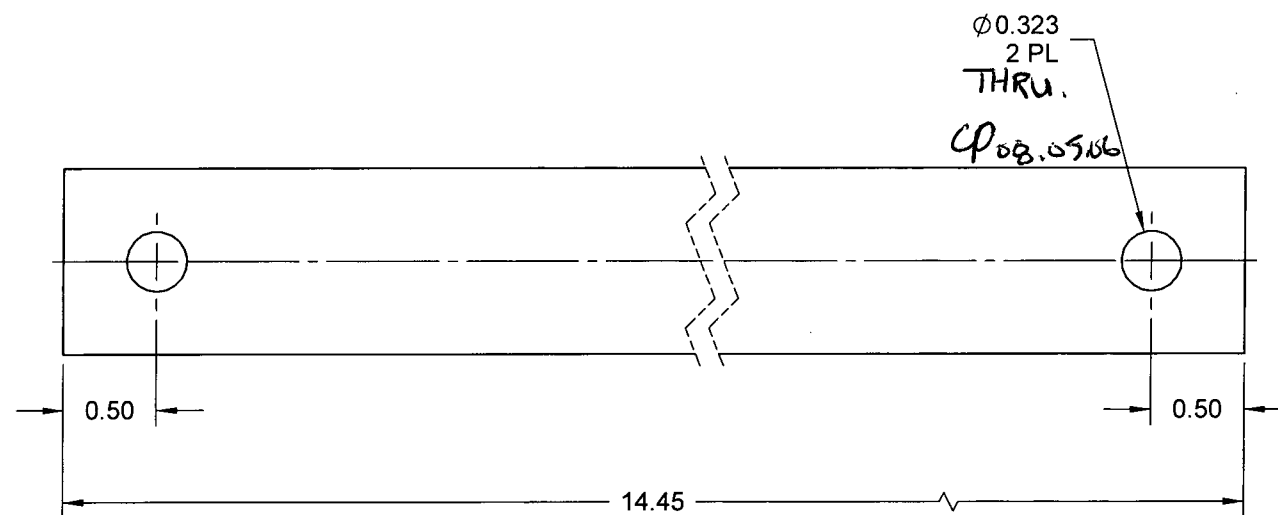
D3769-3 TUBE

D3769-5 TUBE

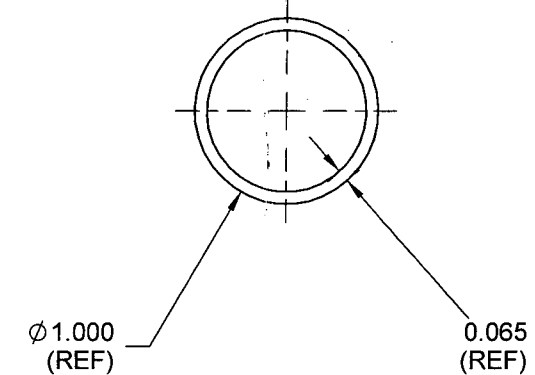
**PROTOTYPE**  
PLEASE RETURN ALL ISSUED  
DATA TO ENGINEERING  
*9/68.64.23*

- NOTES:**  
1) MATERIAL: 6061-T6 (QQ-A-200/8 OR QQ-A-225/8) ALUMINUM TUBING 1.00" X 0.065" WALL (REF. DART SPEC. M6061T6T1.000W.065)  
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION: N/A  
7) WEIGHT: D3769-1, 0.27 lbs  
              D3769-3, 0.28 lbs  
              D3769-5, 0.37 lbs

REV.	DESCRIPTION		BY	DATE
DESIGN	HS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DRAWN	HS			
CHECKED		DRAWING NO.	REV. A	
MFG. APPR.		D3769	SHEET 1 OF 4	
APPROVED		TITLE	SCALE	
DE APPR.		TUBE	NTS	
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**D3769-1 TUBE**



**PROTOTYPE**  
PLEASE RETURN ALL ISSUED  
DATA TO ENGINEERING

*CP 08.04.23*

DESIGN	HS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	HS		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		<b>D3769</b>	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		<b>TUBE</b>	1:1
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